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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,194	11/09/2001	Haruyama Shinichi	678-756 (P9786)	6677
28249	7590	12/06/2005	EXAMINER	
DILWORTH & BARRESE, LLP 333 EARLE OVINGTON BLVD. UNIONDALE, NY 11553			JAMAL, ALEXANDER	
		ART UNIT		PAPER NUMBER
				2643

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/037,194	SHINICHI ET AL.
	Examiner Alexander Jamal	Art Unit 2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 18 November 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-6 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Response to Amendment***

1. Based upon the submitted after final arguments (11-18-2005) that being 'fed' refers to driving the antenna elements in order to radiate outward, the examiner withdraws the finality of the previous final rejections and submits a new set of non-final rejections based upon new art.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1,2 rejected under 35 U.S.C. 102(e) as being anticipated by Wong (6615026).**

As per **claim 1**, Wong discloses a plurality of antennas with each antenna coupled to power-feed phase control means (Col 3 lines 40-60, Fig. 5). The antennas are dipole antennas (Col 2 lines 45-57).

As per **claim 2**, the phase control means will adjust the power distribution ratio by varying the phases (and as such, the amplitudes) of each respective antenna signal.

4. **Claims 3-5** rejected under 35 U.S.C. 102(e) as being anticipated by Tran (6184833).

As per **claims 3,4**, Tran discloses a portable phone (Fig. 14a,14b) with a dual strip antenna (dipole antenna pattern) arranged on a PCB surface (Col 6 line 61 to Col 7 line 5) opposite to a mounted speaker in the device (Col 5 lines 45-55) (Col 10 lines 5-20).

As per **claim 5**, the antenna (and it's dielectric) form a multi-layered structure to be mounted of the PCB (Fig. 4).

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claim 6** rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (6184833), and further in view of Wong (6615026).

As per **claim 6**, Tran discloses a portable phone comprising a dipole antenna mounted on a PCB opposite a speaker (as per claim 3-5 rejections). However, Tran does

not disclose that the antenna is a set of dipole antennas that are fed the same power through phase control means.

Wong discloses a plurality of antennas with each antenna coupled to phase control means as per the rejection of claims 1,2. Wong further teaches that an array of phase controlled antennas may be used to control the direction of the radiated energy (Col 3 lines 40-60) and allow for better reception. It would have been obvious to one of ordinary skill in the art at the time of this application that an array of antennas with phase controlled power-feed could be used in the portable phone for the advantage of greater control of the radiated signals and allowing greater transmission energy to be steered towards a base station.

#### **Response to Arguments**

7. Applicant's arguments with respect to claims 1,2,6 have been considered but are moot in view of the new ground(s) of rejection.
  
8. Applicant's arguments with respect to claims 3-5 have been considered but are not persuasive.

Examiner notes that applicant's argument regarding claim 3 (remarks page 3) begins by referring to the prior art by Tran and then refers to the prior art of Taenzor. Examiner assumes this was an error and assumes all prior art references used in the claim 3 argument are referring to the Tran reference.

As per applicant's argument that the Tran reference does not disclose a dipole antenna, examiner disagrees. The antenna of Fig. 4 is a dipole antenna consisting of two driven elements (404,412).

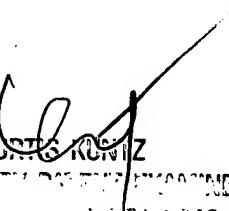
As per applicant's argument that Tran's statement that an antenna may be "mounted behind other elements such as speakers" implies that the antenna is mounted in between the speaker and circuit board (remarks page 3), examiner disagrees. Examiner notes the argument used in the final rejection (8-15-2005) that the Tran reference discloses that the antennas may be mounted 'adjacent to, or behind' other elements. Note that Tran uses both the words 'behind' and 'adjacent to'. Examiner reads 'behind' as on a side opposite to a speaker mounted side of a pcb board. If the antenna were mounted in between the speaker and pcb then the antenna would be 'adjacent' to the speaker.

As per applicant's argument that the Tran reference discloses an omni-directional radiation pattern (remarks pages 3-4), examiner notes that claim 3 has nothing to do with a particular radiating pattern.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 571-272-7498. The examiner can normally be reached on M-F 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 571-272-7499. The fax phone numbers for the organization where this application or proceeding is assigned are **571-273-8300** for regular communications and **571-273-8300** for After Final communications.

AJ  
November 29, 2005

  
CURTIS A. KUNTZ  
SUPERVISORY PATENT EXAMINER  
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